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Macro-Prudential Regulation of Credit Booms and Busts

The Case of Poland

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Abstract

The last several years before the global downturn of 2008–2009 saw rapid credit growth in Poland. The credit-to-gross domestic product ratio rose from about 25 percent in 2004 to close to 50 percent in 2009. Such an expansion itself might potentially be a source of risks to financial stability, but it was also coupled with relatively new phenomena, such as massive foreign currency lending. Thanks to the pro-active attitude of the Polish authorities and sound economic fundamentals, the risks largely have not materialized. Since 2006 the financial supervisor has addressed in its recommendations for banks the problem of foreign exchange lending, which contributed to the high quality of the portfolio. Before the economy slowed down, the Polish Financial Supervisory Authority persuaded banks to accumulate an additional capital buffer that helped protect them from the negative consequences of the downturn. Some regulatory concepts that had been put into place in Poland in the previous years, including quantitative liquidity requirements, are now being implemented globally. The Polish Financial Supervisory Authority participates in international debates on a new regulatory regime for the financial system. The major message the authority intends to convey is that all new regulations must be tailored carefully. Regulators should make an effort to ensure that the benefits of enhanced quality of the capital base or the countercyclical buffer are not compromised by international overregulation that could undermine national authorities' ability to pursue effective country-specific policies.

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MACRO-PRUDENTIAL REGULATION OF CREDIT BOOMS AND BUSTS—THE CASE OF POLAND

by

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MACRO-PRUDENTIAL REGULATION OF CREDIT BOOMS AND BUSTS—THE CASE OF POLAND[1]

I. MANAGEMENT OF CREDIT BOOMS AND BUSTS

1. Background

The macroeconomic situation in Poland during the period 2004 to 2008 created favorable conditions for the development of the financial system. The average annual rate of gross domestic product (GDP) growth in that period amounted to 4.3 percent. An increase in employment and wages had an impact on the improvement of the financial standing of households. This contributed to a high growth rate of mortgage loans and a growing demand of households for services provided by financial institutions. An improvement in the financial standing of enterprises and a larger absorption of European Union funds were also recorded from 2004 to 2008. This, together with significant capacity utilization and a prospect for maintaining high economic growth, contributed to the rise in investment, another determinant of higher credit demand.

However, the last year of the analyzed period, 2008, must be divided in two parts. The first (approximately the first three quarters) was characterized by a fast rate of economic growth, despite the symptoms of the global economic downturn. In mid-September 2008, however, the second wave of the world financial crisis passed through Polish financial markets. It led to serious disturbances in the functioning of markets; a sharp increase of aversion to risk and a tightening of banks' lending policy resulted in an increase in financing costs. As a result of the escalation of the crisis, emerging countries experienced sales of assets (including currencies) along with a strong decrease in prices of commodities and a slowdown in investment processes. These resulted in a worsening of the economic situation and declining prospects for a world economic upturn. A strong slowdown in the Polish GDP growth rate (see figure 1) and deteriorating hopes for its rebound occurred as a consequence of decreasing external demand for Polish exports and subsequent adjustments by enterprises and households.

Despite the slowdown, the condition of the Polish economy was better than the economies of other EU countries. Poland turned out to be the only EU country that managed to maintain a positive growth rate in 2009. Subsequent economic growth in Poland reached 3.8 percent in 2010 and 4.1 percent in 2011 Q1 (at constant 2000 prices) on the back of public and private consumption and a turnaround in stockbuilding, even though private consumption decelerated somewhat late in 2010. Industrial production has accelerated, and business confidence indicators suggest continued expansion. At the beginning of 2011, Poland had forecast its public finance sector debt at 6.5 percent of annual GDP (according to ESA 95 methodology). Due to an increase in economic growth, the Polish government announced in June 2011 that the deficit would be 25 percent

[1] This is a background paper to a forthcoming World Bank report titled "Golden Growth: Restoring the Lustre of the European Economic Model." The views expressed in this paper are exclusively those of the authors and do not necessarily represent the views of the (i) Polish Financial Supervision Authority or its management, (ii) World Bank and its affiliated organizations, or (iii) the Executive Directors of the World Bank and the governments they represent. All errors and omissions remain entirely the responsibility of the authors. The authors may be contacted at michal.kruszka@knf.gov.pl and michal.kowalczyk@knf.gov.pl.

smaller than had been anticipated. Poland is on track to slash its public finance deficit to 5.6 percent of 2011 GDP.

Monetary policy of the National Bank of Poland

The basic objective of monetary policy of the National Bank of Poland (NBP) is to maintain price stability. Since 1999 the central bank has operated a direct inflation-targeting policy regime. Within the framework of this strategy, the Monetary Policy Council (one of the main bodies of the NBP) sets the inflation target and then adjusts the NBP basic interest rates in order to maximize the probability of achieving the target. Since the beginning of 2004, the NBP has pursued an inflation target of 2.5 percent with a permissible fluctuation band of +/- 1 percentage point (see figure 2). The NBP does not define any countercyclical objective as such, but the MPC can change the required-reserve rate.

The required reserve imposed by the NBP constitutes a portion, expressed in zloty, of funds accumulated on bank accounts and obtained from the sale of securities and other repayable funds accepted by the banks, except for funds taken from another domestic bank or obtained from abroad (with a maturity of at least two years). The required reserve is held on accounts with the NBP. Reserve requirements are set by the Monetary Policy Council. From October 2003 until May 2009 the required-reserve rate was 3.5 percent for all the types of deposits, except for funds obtained from repurchase agreements, whose required-reserve rate is 0 percent. From June, 2009 until December 2010 the required-reserve rate was lowered to 3 percent. In the opinion of the council, the reduction of the rate should be conducive to increasing banks' lending. Since December 2010, the required-reserve rate is again 3.5 percent. The MPC set the same requirements for domestic and foreign currency deposits.

Financial system developments

In 2008 the value of assets of all financial institution reached PLN 1,403.5 billion, the equivalent of 110 percent of the annual Polish GDP (table 1 and table 2). During 2004–2007, the most rapidly developing institutions were related to the capital market. Investment funds and brokerage entities were able to increase assets by around 60 percent in 2006 (see table 3). The global financial crisis and rapid decrease of stock market indices (see figure 3) stopped this process. Investment funds lost almost 50 percent of assets in 2008. At the same time, the banking sector performed quite well and increased assets by 31 percent. The next two years showed that the Polish financial market is very bullish—all participants increased assets, and their value reached 118 percent of GDP in 2010. Despite the growing importance on nonbanking financial institutions during 2004–2007, the banking sector still plays a dominant role in the Polish financial system. The last years did not change this situation.

The capitalization of the stock market in Poland significantly increased during the 2004–2007 period (from PLN 214 billion to PLN 510 billion). This indicator drastically decreased to PLN 267 billion in 2008, two years later reached PLN 542 billion, i.e., the capitalization in 2010 was higher than in 2007. The Polish stock market remained the biggest stock market in the Central and Eastern Europe (CEE) region, but its capitalization is much lower than the capitalization of developed markets of the euro area. Despite a significant increase, the Polish stock market

capitalization-to-GDP ratio is around 40 percent (see figure 4), while assets of the banking sector reached 81 percent of GDP in 2008, and 82 percent in 2010.

There is no universally accepted definition of *credit boom* or *excessive credit growth* in Poland. The stock of loans is still relatively low, especially in comparison with other EU countries. The ratio of credit of the nonfinancial sector to GDP is below 50 percent (see figure 6). Nevertheless the NBP and the Polish Financial Supervision Authority (KNF) prepared some estimates concerning this subject. The first one is based on prices of the residential properties.

An increase in prices of residential property has been observed in Poland since 2003 but so far has not exceeded 10–20 percent annually. In 2006, the growth rate of prices for flats significantly accelerated (see figure 5). The increases were recorded in both the primary and secondary market. The main reason for the acceleration of prices for residential property in 2006 was the growing imbalance between demand and supply on the housing market coupled with strongly increasing price expectations.

Apart from the structural factors, the demand increase resulted from the impact of factors related to the phase of the business cycle and short-term factors. The major reasons for the increased demand for flats include (i) the improvement in the financial situation of many households, (ii) better availability of financing for housing investments with bank loans, and (iii) increased investment and speculative demand. Since the beginning of 2008, prices of residential property have been stabilizing or decreasing. The slowdown of the growth rate of prices in the primary market may have been influenced by a further increase in supply in the main urban areas. The decline in prices of flats in 2009–2010 was mainly caused by a decrease in households' effective demand. The following factors contributed to the decline in demand: (i) tightening of banks' lending policy, (ii) a slower growth rate of households' disposable income and (iii) a rise of unemployment. On the other hand, the activity rate also increased, which means that previously economically inactive persons became active job seekers (see figure 25). According to information on residential prices, the period 2006–2007 can be considered a housing credit boom.

An alternative estimation of the credit boom period could be based on the Basel Committee's 2010 proposal. The committee proposed using the difference between the current private credit ratio as a percentage of GDP and its trend value estimated by means of the Hodrick-Prescott (HP) filter (the "credit-to-GDP gap"). When gaps rise above 2 percentage points, creation of the capital buffer should start. The historical data of the credit-to-GDP ratio and Hodrick-Prescott trends are presented on figure 7. The housing-loan-to-GDP ratio was also analyzed (see figure 8). The gaps are presented in figure 9 and figure 10. The results suggest that the credit boom in Poland started in 2008 Q3 and probably ended at the beginning of 2010.

We must remember that the HP filter generates a highly unreliable estimate of the trend at the end of the data period. For this reason alternative methods could be used. Reports of the NBP (2011) and Czech National Bank (CNB 2011) presented results of other estimations. The final conclusions suggested that the HP filter-based calculation of credit booms is not necessarily appropriate in the case of Poland. For the CEE countries in particular, rapid credit growth may simply mean convergence with values typical of the advanced economies, and not necessarily excessive borrowing. However, the dynamics of housing loans during 2006–2008 can be considered an indicator of an early phase of the credit boom.

During 2004–2008, the average annual growth rate of the nominal value of loans for households reached 21 percent, while corporate loans increased by 13 percent. Consequently, the share of loans for households in credit portfolios increased from 40 percent to 60 percent. During the following two years the annual growth rate of loans for households remained positive (7 percent), and corporate loans fell by 3 percent. The decline of corporate loans can be explained by banks' increasing aversion to risk (even though the companies are often using the capital market to raise external funding). As a result, loans to households are the most important part of the Polish banking sector's credit portfolio (see figure 11).

Foreign currency loans accounted for about 27 percent of banks' credit portfolio during 2004–2008. This share increased to 36 percent in 2009 Q1 and fell to 33 percent in 2011 Q1 (figure 12). The share of foreign currency loans in loans for households is higher than for corporate loans (see figure 13 and figure 14). The main determinants of such currency structures are high interest rate disparities in Poland and abroad (figure 15) and stable appreciation of the zloty during 2004–2008 (figure 16), leading to customers' adaptive expectations. It should be stressed that most housing loans granted during 2004–2008 have a variable interest rate. The banks are using interbank interest rates as reference rates. In Poland, the cost of credit, also denominated in foreign currency, is closely correlated with the interest rate. This does not quite apply to all Central and Eastern European countries. In Hungary, for instance, a large portion of real estate loans, especially those denominated in local currency, were state subsidized, and their interest rates have not changed notably since the beginning of the crisis.

The amounts of outstanding real estate loans for households increased significantly in the years 2004–2008. The share of this kind of loans in banks' credit portfolio was 53 percent at the end of 2008 (34 percent at the end of 2004). Despite a sharp decline in the annual growth rate of nominal value, housing loans are still the most important part of households' credit portfolio (see figure 17).

The allocation of corporate credit across sectors was very stable during 2004–2008. The majority (about 53 percent) of large credit exposures was dedicated to the service sector, for example, retail trade and repairs (see table 8). Approximately 35 percent of large credits were granted to manufacturing. The share of construction increased from 7 percent (2004) to almost 11 percent (2008). This structure changed in 2010. The most important difference was the lower share of services (49 percent in September 2010) and the sharp increase of loans to construction companies.

The structure of the banking sector in Poland did not change significantly during 2004–2008 Commercial entities made up about 50 of the sector's banks. There were almost 600 cooperative banks, but their share in total banking assets was small, around 6 percent. The most important structural change was a dynamic increase in the number of branches of credit institutions (see table 4). This was a consequence of Poland's EU accession and adoption of "single banking passport" regime.

Some of the branches of credit institutions introduced very aggressive development strategies. As a result, the share of branches in total banking assets increased to 5.4 percent at the end of 2008. Branches and cooperative banks were able to collect the same value of assets.

The biggest branch in the Polish banking sector is a branch of Greek EFG Eurobank Ergasis. The branch operates in Poland under the brand Polbank EFG, and its share in total banking assets is about 2 percent. Since July 2011 the amended banking law has been in place to facilitate the transformation of a branch into a subsidiary. EFG Eurobank has agreed to sell the branch, once it transforms, to Raiffeisen International and has already booked a profit from this transaction.

Since the mid-1990s the majority of commercial banks in Poland have been controlled by foreign investors. The average share of foreign subsidiaries in total banking assets is around 65 percent (see table 5). There were investors from 17 countries in the banking sector in Poland in 2008. The dominant role is played by five countries: Italy, Germany, the Netherlands, the United States, and Belgium (see table 6). However, the important and positive feature of ownership structure is diversification according to the strategic investor's country of origin, which makes the banking sector relatively resistant to negative economic events that may occur in particular countries.

Financial market liberalization and the rising share of foreign investors in the banking sector should be considered an important factor explaining a considerable share of foreign-currency-denominated loans in Poland. With the freedom to operate in international markets, banks have gained easier access to foreign funding, including via their parent banks. This has paved the way for the development of their lending offers. It should be underlined that during 2008–2010 there were several bank mergers and changes of strategic investors. For example, GE Money merged with Bank BPH in 2008, BNP Paribas acquired Fortis Bank in 2009, and AIB sold its Polish subsidiary (BZ WBK) to Banco Santander in 2010.

During 2004–2008 bank profitability measured by return of equity (ROE) and return of assets (ROA) did not change significantly (table 7). However, banks noted a decline in gross profitability indices in 2009. The performance of the banking sector improved in 2010, but indices were lower than during the 2004–2008 period. The main source of net profit of the banking sector is interest income. However, growing competition and a lack of possibilities for a further decrease in margins resulted in banks more often searching for non-interest-related sources of income. In Poland, the most important source of non-interest-related income in the banking sector is commission and fee income.

During 2004–2008, the quality of banks' credit portfolio significantly improved. Nonperforming loans ratio declined from 15 percent in 2004 to 3.5 percent in 2008. The value of impaired loans increased in 2009 and 2010, both in corporate and household loans. However, the rise of impaired loans ratio in 2010 was slower than in 2009.

The most important nonbanking financial institutions involved in credit supply in Poland are credit unions. They are classified as monetary financial institution. However, activities of credit unions are not regulated by the KNF. The National Association of Credit Unions (KSKOK) supervises them. The credit unions are not participants in the deposit guarantee scheme managed by the Bank Guarantee Fund.

Since 2006 Q4, due to legislative changes, the scope of financial services offered by credit unions has expanded to include loans and other financing transactions granted for periods exceeding five years. The sale of these financial products had a significant impact on accredit unions' high

growth rate of assets in 2007. The regulations limiting the maximum repayment period of real estate loans granted by credit unions to five years were reintroduced in 2009.

Despite a dynamic growth of the credit union sector, assets remained below 1 percent of the balance sheet total of the financial system in Poland. During 2004–2008 the value of loans granted by credit unions amounted to approximately 1 percent of the value of loans granted by the banking sector.

Cross-border flows

During 2004–2008 capital flows to Poland were smaller in size and less volatile than in other emerging European countries (see figure 18 and figure 19) (IMF 2010). On the whole, capital inflows to emerging Europe were justified by a real convergence process and financial markets liberalization. While Poland experienced a decline in flows in 2009, the magnitude was relatively small. In 2009 Poland outpaced the CEE region in both gross and net capital inflows, due to a renewed risk appetite for strong emerging markets.

Foreign direct investments (FDI) were the most stable part of gross capital inflows to Poland during 2004–2008 (see figure 21). The share of manufacturing FDI reached 37 percent in 2004, while the share of services FDI reached 60 percent. In 2008 the share of manufacturing FDI declined to 16 percent and the services share increased to 66 percent.

Liabilities from portfolio investment played a significant role in Poland, likely due to more developed and liquid equity and bond markets. The outflow of portfolio investment in 2007 and 2008 was generated by means of the global financial crises and growing aversion to risk.

The banking flows are a component of other investment liabilities. It should be underlined that foreign parent banks did not transfer liquid assets from Polish subsidiaries during 2007–2008. Moreover, they increased the value of investment liabilities for 2009–2010 (see figure 20). The practice of foreign investors can be explained by the good condition of Polish economy and the Polish banking sector. The regulations adopted by financial supervision were certainly not negligible—see the next parts of this report.

Poland has been a member of the EU since 2004. Article 63(1) of the Treaty on the Functioning of the European Union (TFEU) prohibits capital controls, stating that "all restrictions on the movement of capital between Member States and between Member States and third countries shall be prohibited." Nevertheless, the prohibition needs to remain consistent with the member's right "to take all requisite measures to prevent infringements of national laws and regulations, in particular in the field of taxation and the prudential supervision of financial institutions, or to lay down procedures for the declaration of capital movements for purposes of administrative or statistical information, or to take measures which are justified on grounds of public policy or public security" (Article 65(1)). Although this leaves a certain margin of discretion, the treaty clarifies that the above measures and procedures cannot constitute "a means of arbitrary discrimination or a disguised restriction on the free movement of capital and payments" (Article 65(3)). Ultimately, the Court of Justice of the European Union is responsible for judging which measures are compatible with the rules of the treaty. Polish law follows the TFEU rules.

There are no plans to change Polish regulations concerning freedom of capital movement. It should be noted, however, in this context that the provisions of TFUE give the member states the right to adopt measures necessary to preserve financial stability. The case of Icelandic Landsbanki illustrated the weaknesses of the current European deposit guarantee system. The Polish—and European—authorities should think of ways to limit the risk that branches pose to the financial system. Without prejudice to the TFEU, one of the options to consider would be an extension of the local deposit guarantee scheme to cover also deposits held at significant branches of foreign banks, if their home scheme is deemed inadequate. That mechanism would also serve to mitigate the risk of banks in the same market exploiting—for marketing purposes—the fact of belonging to guarantee schemes with different levels of reliability as a means of competition for clients' deposits.

In accordance with the EU law, Poland amended the Banking Act in 2004. The new regulations introduced the freedom to provide cross-border banking services, i.e., customers are able to obtain credit directly from foreign European banks without the intermediation of a local subsidiary. Data presented in figure 22 show that this mode of supply is not a very important channel of credit inflow. The share of cross-border loans did not exceed 15 percent of all loans granted to the nonfinancial sector.

2. Macro-prudential regulation

Capital requirements: These were adopted in Poland in 1997 together with the introduction of new Banking Act. According to Article 128(3), each bank is obliged to maintain its capital adequacy ratio at a level of at least 8 percent, with a bank commencing operations required to maintain this ratio at no less than 15 percent for the first 12 months of operations, and at no less than 12 percent for the following 12 months.

The European Union by adoption of Directive 2006/48/EC and 2006/49/EC implemented the Basel II provision. Poland also adopted amendments of legal measures, but the minimum capital adequacy ratio is still 8 percent. The capital adequacy ratio of the bank is calculated as a quotient multiplied by 100, where the numerator is the value of the bank's own funds (regulatory capital increased by short-term capital) and the denominator is the overall capital requirement multiplied by 12.5. The principles of overall capital requirement estimation (especially the risk weights) are determined by the Resolutions of the KNF. The binding act is the Resolution No. 76/2010 of 10th March 2010.

The actual capital adequacy ratio in the Polish banking system is significantly higher than the minimum binding level (see table 7). However, the financial crisis created a very unfavorable environment for the development of banks in 2008–2009. Against this backdrop the KNF made sure that the majority of accrued profit from previous year went to strengthen the banking sector capital base. In January 2009, it was recommended that banks set up an additional capital buffer—a 2 percent surplus above the required 8 percent minimum ratio. It was not a rules-based action, but a discretionary and nonbiding suggestion.

In 2009, the vast majority of banks followed the recommendations of the supervisory authority and decided to retain profits for 2008. Some of the banks operating in Poland received support from their foreign owners, in the form of participation in share capital increases and credit facilities.

Higher equity (currently in excess of PLN 100 billion) helped to maintain the lending activity and offset the higher capital requirements. As a result, the average capital adequacy ratio of the Polish banking sector increased from 11.2 percent at the end of 2008 to 13.8 percent at the end of 2010.

In June 2011 the KNF amended Resolution No. 76/2010 of March 10, 2010, and raised risk weight of foreign currency-denominated retail credit exposures from 75 percent to 100 percent. The change will be effective as of June 30, 2012.

Liquidity rules: The liquidity position of Polish banks and the risk related to liquidity management, both short and long term, is subject to supervisory regulation. It should be emphasized that the regulations in this respect implemented by the Commission for Banking Supervision and later confirmed by the KNF had been developed before the onset of turbulences on the financial markets. Recommendation P on liquidity-monitoring principles (adopted in 2002) and Resolution No. 9/2007 of the Commission for Banking Supervision (defining liquidity standards binding for banks) are the key elements of these regulations. Resolution No. 9/2007 came into force in January 2008. However, until June 29, 2008, banks and branches of credit institutions were not obliged to meet the regulatory limits. KNF took over the function of banking supervision on January 1, 2008 and KNF adopted Resolution No. 386/2008 of December 17, 2008, defining liquidity standards binding for banks (superseding Resolution No. 9/2007 KNB). Resolution No. 386/2008 came into force in January 2009.

Resolutions of the Commission on Banking Supervision (KNB) and KNF on bank liquidity standards were aimed at implementing minimum quantitative and qualitative requirements for managing liquidity risk, which should increase the security of bank operations. The resolutions on liquidity standards introduced a breakdown of banks' asset and liability categories by their liquidity or stability. Assets have been broken down into the following four main categories:

1. core liquidity reserve—cash and receivables as well as other assets in the amount obtainable within 7 days

2. supplementary liquidity reserve—receivables as well as other assets in the amount obtainable within 7 to 30 days

3. assets of limited liquidity—assets resulting from banking activities outside the wholesale financial market

4. illiquid assets—assets not resulting from banking activities

The resolutions of KNB and KNF define the following main liability categories:

- regulatory capital—own funds less the sum of the value of capital requirements for market risk, settlement/delivery risk, and counterparty risk

- stable external funds—funds that the bank includes in stable funding sources, in particular core deposits; own securities issued that are not included in regulatory capital; other liabilities with the original maturity over one year, which the bank intends to renew; and other liabilities resulting from banking activities whose plan of obtaining and renewing has been approved by the supervisory board

- unstable external funds

These categories of assets and liabilities are then used to define the liquidity standards. Banks and branches of credit institutions are obliged to meet liquidity standards above the minimum level set by the Resolution No. 386/2008.

Liquidity standards of monetary institution depend on the size and legal form of the institution. Banks with total assets above PLN 200 million are required to meet the following standards:

- short-term liquidity gap—the sum of core and supplementary liquidity reserve less unstable external funds; minimum value = 0.00

- short-term liquidity ratio—the ratio of the sum of core and supplementary liquidity reserve to unstable external funds; minimum value = 1.00

- ratio of coverage of illiquid assets with regulatory capital—minimum value = 1.00

- ratio of coverage of illiquid assets and assets of limited liquidity with regulatory capital and stable external funds—minimum value = 1.00

Branches of credit institutions with total assets above PLN 200 million are required to meet only short-term liquidity standards. Banks with total assets below PLN 200 million are required to meet the following standards:

- share of core and supplementary liquidity reserve in total assets—minimum value = 0.20

- ratio of coverage of illiquid assets with regulatory capital—minimum value = 1.00.

Branches of credit institutions with total assets below PLN 200 million must meet only the minimum share of core and supplementary liquidity reserve in total assets.

According to the binding principles, banks and branches of credit institutions are obliged to notify the KNF of any reduction in liquidity measures below the supervisory standards and to take immediate actions to return to adequate level of funds securing liquidity. A vast majority of banks meet liquidity standards (see table 9). A few banks have difficulties in meeting long-term liquidity standards. However, the share of these banks in the assets of the sector is insignificant.

The largest rise has been recorded for the ratio of coverage of illiquid assets with regulatory capital, which should be attributed to the increase in regulatory capital as most banks have retained profits generated in 2008. The situation of commercial banks is relatively better in terms of short-term liquidity. Since the entry into force of Resolution No. 386/2008, the average value of the short-term liquidity ratio has been markedly higher than that of the ratio of coverage of illiquid assets and assets of limited liquidity with regulatory capital and stable external funds (given the same minimum required value—see figure 23).

In connection with the difficult situation of the financial markets and the deepening problems of financial institutions in global markets, caused by the crisis in the US real estate market, the KNF has taken a number of measures with respect to the supervised entities. These will enable

continuous monitoring of their operations and, in particular, their liquidity positions. The KNF immediately reacted to any signs of financial groups' problems that could affect the situation of their subsidiaries operating in Poland by focusing on meetings with banks' management boards, communicating with their home supervision authorities, and conducting regulatory activities.

Besides devising rule-based liquidity standards in 2009, the KNF undertook discretionary actions aimed at maintaining the liquidity positions of Polish banks. The KNF imposed an obligation on banks to provide, on a daily basis, information on their short-term liquidity and transactions with foreign entities, including daily reports on the banks' new exposures to foreign entities. Some individual steps were taken with respect to selected banks, which included specific monitoring of the bank's exposure to a strategic investor, capital group, or group members. The KNF paid particular attention to transactions with possible unjustified transfers to parent institutions. In its daily monitoring activities no such transactions were observed. Transactions with related and nonrelated institutions remained at a normal level.

Asset valuation rules: According to Article 55(5) of the Accounting Act, commercial banks operating in Poland are obliged to prepare consolidated financial statements in accordance with International Accounting Standards/International Financial Reporting Standards (IAS/IFRS). This regulation was adopted in 2005. Cooperative banks must prepare financial statements in accordance with the Polish Accounting Act. Provisions of accounting standards did not vary at peaks or troughs in the business or credit cycle in Poland, and asset valuation rules cannot be considered as a macro-prudential measures.

Direct credit controls: In certain circumstances, the Monetary Policy Council may restrict the volume of funds granted to borrowers by banks, or may require the holding of non-interest-bearing deposits with the NBP against foreign funds used by banks and domestic entrepreneurs (Article 46 of the Act on the National Bank of Poland). This rule was adopted in 1997 but has never been used.

Provisioning rules: Current regulations on classifying loans according to their risk categories and on procedures for specific provisioning were stipulated in the Regulation of the Minister of Finance of December 10, 2003. This regulation was superseded by the Regulation of the Ministry of Finance of December 16, 2008, (henceforth the Regulation), but basic principles did not change, so it is fair to say that regulations concerning provisioning have been largely unchanged since January 2004.

The Regulation introduced classification of loans according to repayment performance. A bank is obliged to classify loans with regard to the delay in payments of principal or interest. If the delay in payments is between 3 and 6 months then a loan is classified as substandard. The delay between 6 and 12 months means that a loan is classified as doubtful. A loan is classified as a loss if the delay in payment exceeds 12 months. Loans classified as substandard, doubtful, or losses are recognized as impaired loans. The classification of consumer loans has been limited to two categories: satisfactory (the delay is payment is less than 6 months), or loss (the delay in payment is more than 6 months). The impaired loans are subject to specific provisioning requirements. These must constitute at least 20 percent of the provisioning base for substandard claims, 50 percent for doubtful ones, and 100 percent for loans classified as losses.

The Regulation also adopted an additional (economic) criterion of loans classification. The claim can be recognized as an impaired loan if the economic standing of the borrower suggests that it may experience difficulties with debt repayment. It means that loan classification can be adjusted to reflect business cycle conditions and can be considered to be of a macro-prudential nature. However, the economic criterion is not applicable to any kind of household loans.

The regulation assigning loans to particular risk categories and specifying procedures for specific provisioning, which came into effect at the beginning of 2004, resulted in some irregular loans being reclassified as lower risk or indeed as satisfactory. Around a third of the decline in the irregular loan ratio in 2004 can be attributed to regulatory factors, primarily to consumer exposures classified substandard and doubtful being upgraded to satisfactory, and to charge-offs of some loss exposures.

The rules stipulated in the Regulation are binding for banks that apply Polish accounting standards, i.e., currently, cooperative banks. The commercial banks adopted IAS/IFRS, and they are allowed to omit the classification approach adopted by the Ministry of Finance. These banks are calculating the "recoverable amount" of loans and then provision for a loss in value against the difference relative to the outstanding loan principal and interest. The principles for determining the recoverable amounts are set individually at particular banks (or banking groups). This means that, in the case of large corporate loans, the financial situation of the customer has a greater bearing than the current regulation of the Ministry of Finance. The recoverable amount of retail loans and smaller business loans are assessed on a portfolio basis, i.e., using statistical methods for exposures with similar characteristics.

Since 2005, discrepancies have been expected between banks applying domestic and international accounting rules, in terms of both loan classification and provisioning coverage for irregular loans. However, in accordance with the suggestions made by banking supervisors, banks applying IAS/IFRS were obliged to prepare information on irregular loans for the NBP in the form corresponding to Polish accounting standards. In other words, in the case of banks applying IAS/IFRS the results of portfolio classification, obtained according to internal models of loan impairment, are "translated" into categories most similar to those defined in the Regulation of Ministry of Finance.

Other regulations: Recommendations for banks: The recommendations adopted by Polish banking supervision (previously by the Commission for Banking Supervision, KNB, and now by the KNF) are not binding regulations and their provisions stipulate only soft-law measure. However, banks adapt the standards prescribed for them

In response to detected shortcomings in the management of credit risk at some credit institutions, in March 2006 the KNB issued **Recommendation S** concerning good practices with regard to mortgage-secured loan exposures. The recommendation in its original form covered, inter alia, the following areas: (i) the risk of the mortgage-secured credit exposure portfolio; (ii) the risk assumed (appropriate tools for the proper measurement of risk associated with mortgage-secured credit exposures); (iii) the borrower's FX risk and interest rate risk (a systematic analysis of the FX risk and interest rate risk borne by the borrower); (iv) collateral (proper verification of its value); and (v) customer protection issues (type and quality of information presented to customers).

Specifically, it was recommended that banks evaluate the creditworthiness of a borrower applying for an FX loan under the assumption that the interest rate of the zloty loan and FX loan are the same, and the outstanding FX loan principal is 20 percent higher to accommodate for the additional FX risk. It was also recommended that banks use stress-test analysis of the exchange-rate effect on credit risk. The minimum level of zloty depreciation used in that test should be no lower than a 30 percent decline over a 12-month horizon.

Recommendation S also introduced standards of information disclosed to customers about FX risks by presenting them with the results of simulations of loan installments: including, among others, the case of a 20 percent depreciation of the zloty, the increase of interest to the level in force for the analogical zloty loan, and the depreciation of the zloty amounting to the difference between the maximum and minimum zloty exchange rate in the past 12 months. It appears that these had contributed to a rise in the awareness of the risks underlying fluctuations of the zloty exchange rate and interest rates among prospective borrowers. The KNB believed that measures introduced would have a downward impact on the demand for foreign currency loans.

Recommendation S as adopted at that time did not provide specific rules for how the creditworthiness of the borrower should be established, but instead postulated extra buffers for FX loans. It proved not to be as effective in limiting proliferation of FX loans as was intended. In fact, in the years following its implementation, the value of foreign-currency-denominated loans increased substantially.

In February 2010, in response to shortcomings in managing credit risk and the exchange-rate risk, the KNF adopted **Recommendation T** on good practices with regard to risk management of retail credit exposures. The regulation is applicable to all types of retail credit transactions. All provisions of the Recommendation T were implemented by banks by the end of 2010. The purpose was to improve the evaluation of retail customers' creditworthiness by banks. In contrast to the original language of Recommendation S, provisions of Recommendation T introduced, for the first time, quantitative standards for creditworthiness evaluation. These applied to household debt as well as to others. The recommendation stipulated that loan repayment burden cannot exceed 50 percent of the net income for borrowers with income below the national average salary. In the case of other borrowers, this threshold should not exceed 65 percent. Moreover, it is recommended that banks should use stress-test analysis for setting the maximum burden limit. The analyses should assume a depreciation of the zloty at the minimum level of 30 percent and an increase in interest rates by at least 400 basis points.

The provision of Recommendation S on the maximum Loan-to-Value (LTV) levels was supplemented by the requirement to justify why a bank uses a particular maximum LTV limit. When the currency of a loan is different than the currency in which collateral is valued, a requirement has been introduced for calculation of LTV to increase the amount of a loan by 10 percent for loans with maturity of up to 5 years and by 20 percent for other loans. Recommendation T also introduced requirements pertaining to the cost to borrowers of loan and other liability servicing. Pursuant to its provisions, a bank should set the maximum limits of the ratio of expenditure related to servicing loan and financial liabilities to a customer's income.

In January 2011 the KNF amended **Recommendation S**. The amended regulation comes fully into force in December 2011. The new version of Recommendation S introduces quantitative

requirements. First, banks are obliged to justify the adopted maximum level of LTV ratio. Second, they have the obligation to adopt the maximum credit exposure repayment period of 25 years in the process of creditworthiness assessment, even if an expected repayment period is longer. Third, the maximum monthly ratio of loan repayment expenditures to borrower's net income was reduced, effectively, to 33 percent in case of foreign currency-denominated housing loans.

The latest developments of the credit market indicate that the currency structure of new housing loans significantly improved as borrowers decided to take FX loans less frequently. Unlike in the period immediately prior to the global financial crisis, in the past two years banks have been extending primarily zloty denominated loans (see figure 24). After the introduction of Recommendation T and amended Recommendation S, the banks significantly tightened their requirements concerning minimum creditworthiness for clients applying for foreign currency loans. It should be pointed out that substantial the depreciation of zloty against Swiss franc and the euro also played role, even if that effect was partly offset by significant decline of interest rates in both Switzerland and the eurozone.

II. FUTURE CHALLENGES

1. Cross-border regulation and national regulation

As described in section A, the Polish banking sector is fairly diversified, although subsidiaries of foreign banks have by far the largest share in the market. From a regulatory perspective, there is no difference in treatment of those subsidiaries and domestically held banks. The KNF's experience has also shown that there is no material difference in how these entities comply with prudential regulations. As long as foreign banks operate in the Polish market via subsidiaries being legal persons incorporated in Poland and subject to prudential requirements on a solo basis, authorities are able both to effectively supervise each of them and to pursue sector-wide macro-prudential policies. Problems may arise when banks restructure in order to give the parent companies more influence over their business lines, when international regulatory changes foster further dependence of subsidiaries on the parent companies, or when a branch (not having legal personality and subject to only limited supervision) becomes so large that its failure may cause market-wide turbulences.

Main problems with burden sharing

In Poland, not a single bank collapsed as a result of the financial crisis, and the public budget was not called upon to rescue private institutions. Because of this, the Polish authorities have not tested burden-sharing mechanisms existing at the European level. The lessons learned by the authorities from other countries are, however, quite clear. In the weeks following the bankruptcy of Lehman Brothers, it became evident that the European burden sharing framework (if one truly existed) had critical gaps. On many occasions, both supervisors and governments intervening to prevent the collapse of a financial institution were quarrelling about who should bear the costs; in some cases, those who did felt like they were paying another country's bills.

Problems emerged both with foreign branches and subsidiaries of financial institutions. The starkest example of the former was the failure of Landsbanki, the Icelandic bank with branches across northern Europe. Three years after its bankruptcy, Iceland has still failed to comply with its obligation to reimburse the United Kingdom and the Netherlands for deposits lost by Landsbanki's

clients in those two countries. (The UK and the Netherlands had covered, respectively, £2.25 billion and €1.33 billion in losses to their domestic depositors as the Icelandic deposit guarantee scheme proved to be insolvent.)

Serious controversies have also surrounded the restructuring of several banking groups with subsidiaries in various countries. The Fortis affair, for instance, almost toppled the Belgian government and left the Dutch government bearing an unproportional part of costs. In some cases wrong decisions taken in the headquarters of international groups affected subsidiaries' ability to continue business. New arrangements were badly needed.

While moral hazard embedded in the system was rightly indicated as one of underlying reasons of the financial sector's excesses, present day regulatory efforts at the EU level do not appear to take it fully into account. In fact, some of the proposed initiatives could further exacerbate the split between the power to make decisions and responsibility for these decisions. It has been proposed that key decisions be vested in parent companies, consolidated supervisors, and EU agencies; at the same time, responsibility for those decisions would be borne by local subsidiaries, host-country deposit guarantee schemes, and state's budgets. This discrepancy is not only unjust, it may also prove dangerous.

The KNF finds it useful to rearticulate two basic principles that should govern further work on burden sharing and related matters. First, responsibility must be coupled with real competences. As costs of crises are ultimately to be borne at the national level, national authorities must have adequate tools to prevent bank failures effectively. Among those tools are prudential and conduct-of-business regulations, off-site and on-site monitoring, discretionary decisions addressed to individual institutions, resolution mechanisms, etc.

Second, we should avoid adopting solutions that are contrary to the basics of free-market economics. This assertion has two practical applications. One is that banks must be allowed to fail, just like any other business (with the exception that its assets should be transferred in an orderly way to another bank or vehicle). Without this, curbing moral hazards are just empty words. The second consequence of the free-market perspective should be respect for the *arm's length* principle. Each bank must be able to survive periods of stress on a stand-alone basis, without tapping into affiliated entities and without being forced to prop them up. Consequently, each bank must fulfill prudential requirements on a solo basis. What the crisis should actuate regulators to do is tighten requirements at the local level, not abolish them.

The above principles should be applied to all financial sector regulations, and macro-prudential measures are no exception. As a starting point, it should be stressed that efforts to boost economic growth should not, even in these times of high uncertainty, result in stimulating or tolerating emerging imbalances in the financial system. Another assertion: the important role of credit intermediation that the financial sector plays in each economy should be suited to this economy's characteristics. Economies throughout Europe differ remarkably in terms of their level of development, economic cycle, and credit cycle. Uncontrolled credit growth may or may not be a problem at a given time. That makes it impossible to determine common EU-wide parameters banks should comply with, if the sector is to play its role in the most effective and at the same time safe way. Reactions to economic and credit conditions must differ across countries. Macro-prudential measures should be available at the local level, where responsibility for financial

stability also remains. These measures are even more relevant for the countries of the eurozone that surrendered their monetary policy instruments.

As a final note, it should be mentioned that it is important, too, that macro-prudential measures are applied—with due consideration to the economic environment—to each individual bank, including domestic parts of international groups, thereby ensuring that the sector is covered in its entirety.

Basel III and CRD IV

Basel III, although not perfect, has generally met the criteria mentioned in the paragraphs above. It provided that the new capital and liquidity standards can be applied at the national level, with national supervisors being given the ability to tighten them. The requirements would be imposed on banking groups at the consolidated level but authorities could decide on imposing them on individual institutions within the groups. And the Basel documents explicitly refer to the arm's length principle when talking about intragroup relations. All this raised hopes that the Basel toolkit would be available for efficient use for macro-prudential purposes.

Against this background, the European implementation of the Basel III Capital Requirements Directive (CRD) IV raised some concerns on the part of KNF. As a general observation, it should be noted that the revised CRD, now accompanied by the Capital Requirements Regulation (CRR), goes significantly beyond the Basel consensus, not on the merit, but in regard to the issues of application. KNF believes this modification will not be helpful for financial sector regulators and supervisors whose primary aim is preserving financial stability. What follows is a more detailed description of some aspects of CRD IV as they influence national authorities' ability to conduct macro-prudential policy.

Maximum harmonization regulation

It is revolutionary to propose maximizing harmonization of a large part of banking law, namely all the Pillar I requirements. According to the European Commission's proposal, national regulatory authorities will no longer be allowed to tighten prudential requirements above the levels established by the new CRR. This is contradictory to the lessons derived from the recent crisis, which exposed country-specific gaps in regulatory regimes. Maximum harmonization will not allow national regulators to address existing and potential problems if the solution goes beyond the CRR standards.

These problems are real. In countries where investment banking and proprietary trading by banks play a significant role, regulators are rightly considering *core Tier 1* ratios above those inscribed into the CRD/CRR. In countries with a massive stock of foreign currency loans, authorities may be contemplating extraordinary measures to limit this kind of lending and protect the banking sector from risks related to depreciation of local currencies. In some host countries, regulators would like to see sizeable branches of foreign credit institutions subject to some prudential requirements. All these efforts will not be possible under the maximum harmonization approach of the CRR. As a result, the CRD/CRR may, in some respects, ultimately result in weakening of regulatory and supervisory regime.

Poland may be among the countries affected negatively by the European single rule book. Risk weights in the standardized approach to credit risk, for instance, will be harmonized under the

CRR. While in some cases national authorities will be allowed to set a higher risk weight, it would have to be in accordance with the regulatory technical standards developed by the European Banking Authority and after meeting certain conditions. This procedure will need to be employed in Poland, inter alia, for the risk weight for FX mortgage and consumer loans, which is currently at 100 percent while the level proposed by the European Commission is 35 percent. The CRR level may be appropriate for countries of the eurozone, but it neglects specific problems of countries with a high stock of FX loans. High currency volatility in Europe is a clear issue in today's economic climate, and banks with significant FX exposure should be required to hold higher capital than those lending overwhelmingly or exclusively in a domestic currency. Other results of the maximum harmonization of capital requirements would include, for instance, elimination of a KNF-imposed limit of 15 percent of risk-weighted assets (calculated in the standardized approach) that can be excluded from the calculation under the internal ratings-based approach.

It has been stated that maximum harmonization of all prudential requirements is necessary in the EU single market. The KNF cannot accept this thesis. If this statement were to be true, then law should be fully harmonized in all areas of economic life, not only in banking, and that is hardly imaginable, not least due to the separation of national budgets. The benefits of member states' discretion in this field were acknowledged by the de Larosiere report that stated, "As long as agreed minimum core standards are harmonized and enforced, a country could take more restrictive measures if it considers they are domestically appropriate to safeguard financial stability."

Liquidity requirements

The new CRD/CRR will introduce the liquidity coverage requirement (LCR) as elaborated by the Basel Committee. The KNF has welcomed the work done by the Committee in this realm. Poland first introduced its liquidity regime back in 2007, and strengthened it in subsequent years. Our three ratios played a role in preventing the transatlantic liquidity crisis from paralyzing the Polish interbank market. The LCR, a similar international standard, should strengthen the global financial sector's ability to survive short-term market turbulences.

Perhaps equally important is the long-term liquidity ratio devised by the Basel Committee—the Net Stable Funding Ratio (NSFR). It will factually promote long-term savings and has the ability to restrict long-term borrowing, thus affecting the credit cycle. The effects of the regulation go beyond protection of the financial institutions' resilience against prolonged firm-specific stress conditions, and may encompass deceleration of credit expansion and even the transformation of a society's savings culture. KNF does not have such a tool at its disposal currently. It will be difficult for the Polish banks to fulfill the standard as the medium- and long-term deposit base in Poland is less robust than in Western Europe. It should, however, at least contribute in a consistent way to the much desired transformation of their balance sheet structures.

The European Commission has decided, for now, to refrain from introducing the NSFR to the CRR and is expected to further edit it. Its proposal regarding the LCR in its essence mirrors the Basel consensus, but departs from it in terms of the level of application of the liquidity regime. While the relevant Basel document starts with the assumption that "the standards and monitoring tools should be applied to all internationally active banks on a consolidated basis," it adds that they "may be used for other banks and on any subset of entities of internationally active banks as well

to ensure greater consistency and a level playing field between domestic and cross-border banks." This means that national authorities should be able to oblige local banks belonging to cross-border groups to fulfill the requirements on a solo basis. The document also acknowledges that host regulators may adopt some more stringent parameters within the liquidity standards.

The CRR assumes an opposite approach. As a basis, the LCR and NSFR will be applied to individual institutions. At the same time, the text proposed by the commission stipulates that, for international groups, liquidity requirements shall be applied only on a consolidated basis—provided a number of conditions have been met. The problem is that the conditions are semi-automatic. If a host supervisor agrees that the parent company introduced some enumerated measures, it will not be able to oppose the waiving of liquidity requirements from the subsidiary level.

A situation in which subsidiaries do not fulfill the liquidity requirements could aggravate system-wide problems with liquidity. The global financial crisis, although it was fundamentally a solvency crisis, entered its most acute phase as a liquidity crunch. Many of the largest banks proved to lack a sufficient cushion of most liquid assets. Moreover, analyses of the reports drawn up by the Committee of European Banking Supervisors reveal that entities belonging to large banking groups have had higher liquidity deficits than single credit institutions**.** If individual institutions belonging to groups are not forced to build a liquidity cushion, governments and central banks will have to remain prepared to act as a lender of last resort for many entities at the same time.

To summarize, the KNF supports the introduction of the new LCR and NSFR ratios and agrees with the Basel Committee that some parameters should be left to the discretion of national regulators. As for the level of application, we firmly believe that each institution should be subject to the liquidity requirements on a solo basis unless it has been relieved from this obligation by a discretionary unilateral decision of its competent supervisory authority.

Intragroup transfer of assets

The CRD liquidity regime is intended to facilitate centralized liquidity management. Another European Commission initiative, the so-called intragroup support, aims to enable parent companies to transfer liquid assets among companies within their groups in times of stress. If this proposal was implemented, the consequences of liquidity transfers would be company-specific and its macro-prudential role in principle should not be significant. For this reason it will not be discussed extensively in this report. What should be stressed is that transfer of assets not respecting the arm's length principle would introduce another element of uncertainty into the financial system, as even subsidiaries being very sound on a stand-alone basis could be destabilized by having to aid failing affiliate or parent companies. That will be a new risk factor for banks belonging to complex groups in which some of the components generate higher risk, especially in periods of general distrust on the market.

A potential outflow of assets from domestic entities poses a serious challenge for supervisory authorities. Any supervisory strategy toward a bank can come to nothing when a bank agrees to be deprived of its liquidity buffer. (The European Commission admits that the supervisor of the transferor should have the power to prohibit a transfer of assets, but this decision would have to be

made in consultation with the supervisor responsible for the entity receiving the support and could be appealed by the latter to the European Banking Authority).

In markets dominated by banks that are subsidiaries of foreign institutions, the uncertainty caused by the possibility of a sudden asset transfer could be magnified. In an extreme case, some host markets may come to be seen as less stable during crises because of the risk of capital outflow. A single case of a transfer of assets may result in concerns about other domestic banks' liquidity position. Not only would a supervisory authority responsible for a host market face potential problems with respect to particular banks, sector-wide policies, including macro-prudential measures, could prove less effective if unexpected transfers of assets hit transmission channels.

Countercyclical capital buffer

The countercyclical capital buffer is the only element of the Basel III package with a truly clear macroeconomic purpose. It offers national regulatory authorities new methods with which to tackle system-wide risks that originate in the financial sector but subsequently threaten the entire economy. The effectiveness of the buffer will depend on details of its calibration and application which, in the European Union, will be determined by the revised CRD.

The experiences of several European countries over the past two decades have shown that existing policy tools may not suffice to manage credit expansion. This has been especially true for countries that no longer conduct their own monetary and FX policy (examples include Spain and Ireland but also the Baltic states that pegged their currencies to the euro). But countries from outside the monetary union have also found that their interest-rate policies may be not sufficient to restrain credit growth, especially when a substantial fraction of loans is denominated in a foreign currency.

From a supervisor's perspective, excessive credit expansion is a matter of concern as far as it contributes to accumulation of risk in the banking sector. In the previous years the KNF has sought to mitigate risks related to the quality of the sector's loan portfolio introducing the LTV and debt-to-income (DTI) ratios. As noted in section A, each Polish bank has to establish its own maximum LTV levels according to its risk profile and justify them. For foreign-currency-denominated loans, the LTV ratio cannot exceed 80 percent. In addition, the maximum DTI ratio has been set at 65 percent for persons earning more than the national salary and 50 percent for those earning less. For an FX mortgage loan, monthly installment must not exceed 33 percent of income. The countercyclical capital buffer will complement these measures, limiting credit distribution in boom times and increasing banks' ability to cover losses in an economic downturn.

There is a broad consensus, shared by the KNF, that the countercyclical buffer should comprise high-quality capital and be activated when growth of credit exceeds the long-term average. The proposed credit growth-to-GDP growth ratio is a natural starting point for determining whether credit expansion has become excessive. It should, however, be complemented by other factors in order to appropriately capture country-specific risks. For instance, in some European countries the long-term average credit growth may turn out to be at such a dangerously high level that simply not exceeding it might not be enough. In other countries a credit bubble may be forming only in a particular sector, and applying the buffer for all banks and all loans would risk placing a burden on the sector and the economy without necessarily accomplishing the desired goals. Finally, in some

countries, statistics may be unavailable for a period of time that would underpin firm conclusions about what level of credit growth should be deemed excessive. These concerns necessitate additional analysis on construction of the new requirement. They can be also partially addressed by providing national regulators with a large dose of flexibility in application of the buffer.

The very objective of the countercyclical buffer entails its application on a country basis. The new instrument is meant to help regulators reign in the build-up of credit bubbles. It must be, then, applied to all banks lending to a given market (or to a given segment of the economy), domestic and foreign, whether via subsidiaries, branches, or directly across borders. For branches and cross-border lending, there should be full reciprocity among the countries, at least within the EU. In other words, the KNF agrees that banks lending to foreign markets via branches or directly should build a buffer reflecting a weighted average of national buffers, and this should be done according to their credit exposures.

Finally, attention should be paid to the restrictions imposed on banks that do not build the buffer within the given time. There is a risk that constraints on distribution of capital may in extreme cases be circumvented by some banks, for instance via transactions on nonmarket conditions. It is also imaginable that some banks will deliberately choose not to accumulate the capital buffer and not to pay dividends in order to gain a competitive advantage by increasing their lending. Supervisors should then be authorized to require the bank to form the buffer by a given date.

Branches of foreign credit institutions

In some countries, branches of foreign banks have a significant share of the market. A failure of a parent company in combination with insolvency of the home country deposit guarantee scheme could place a significant financial burden on host country authorities (as in the Icelandic case). At the same time, host authorities have only limited powers to supervise branches in the EU. With the CRD IV, the European Commission attempts to plug the supervisory gap by entrusting all powers in this respect to home supervisors. For the time being, however, the practice of cross-border supervision in Europe does not justify going into this direction. In many cases, foreign branches have been neglected by home supervisors, although the latter are legally responsible for branches' overall situation.

The current version of the CRD has allowed host supervisors to request information from branches and carry out on-site inspections. With the CRD IV in place, host supervisors will have the ability to obtain information on branches' liquidity only via home supervisors. Moreover, host supervisors will have very limited right to force a branch that commits irregularities within its territory into any action. The inspections in branches will be carried out by the host authorities only on a case-by-case basis and after a consultation with home supervisors. As a consequence, authorities of host member states will be deprived of any meaningful control over branches as well as of the possibility to immediately take direct actions toward a branch when it poses a risk to financial stability of the given host country. This would create a substantial gap in the system of financial supervision. Local supervisors would also have very limited power to monitor the situation in a branch on an ongoing basis, despite having the most adequate knowledge to do so.

The European Commission is also proposing relieving branches from the obligation to meet liquidity requirements on a stand-alone basis. The KNF believes the experience of the financial

crisis speaks to the contrary. A determined portion of liquid assets should be kept in a branch to satisfy the potential demand of depositors. In Poland, branches of foreign credit institutions are required on an ongoing basis to fulfill one or two liquidity ratios, depending on the level of assets.

The issue of branches must also be considered in the context of the countercyclical capital buffer. Adequate arrangements on international reciprocity are especially important, as buffers for credit exposures of foreign branches will be established by host authorities but enforced and monitored by home authorities. The KNF agrees with the regulators believing that the proposed absolute limit of 2.5 percent for international reciprocity should be abolished. In other words, home regulators should be allowed to reciprocate the level of buffer set out by host regulators even if it exceeds 2.5 percent. It will allow supervisory response to adjust to the level of risk.

Possible further changes in international regulations

Foreign-currency lending

FX loans, in the CEE region in particular, have typically been associated with and considered to be a particular aspect of inflow of foreign capital into the local financial markets. While retail loans are distributed by their local affiliates who also bear the credit risk, the financial institutions of home countries provide the necessary capital in the form of wholesale funding to those affiliates. If the currency structure of the balance sheet of the parent institution determines the currency in which local affiliates receive their funding, the FX risk is effectively passed on to the affiliates. These might chose to either go on to build local-currency assets and hedge structural FX risk of their balance sheet via hedging operations with their parent (which effectively converts funding obtained from their parent into local-currency), or else they can engage in FX lending. In the latter case, FX risk is being passed further onto the borrowers, who usually have limited ability to manage their exposure. This transmission of risk along the intermediation channel gives rise to a number of significant risks that, from the financial stability point of view, are very relevant. It should be noted that these risks are in fact highly correlated, and will materialize in the case of substantial depreciation of the local currency.

While foreign capital flows generally exhibit strong cyclicality, the economic impact of FX loans is even more pronounced. This is to some extent because of the obvious impact the exchange rate has on the value of borrowers' obligations. But another important factor is the typically high correlation between the exchange rate and the general economic environment. This is especially true with respect to the real assets, where favorable FX funding conditions may contribute (as has been the case in several non-euro EU member states during the pre-crisis years) to property bubbles that subsequently burst when the conditions changed.

Moreover, "dollarization" of the credit market reduces the ability of the local central banks to control the credit channel in their economies. The effectiveness of their monetary policies is in consequence reduced. This observation is important for non-euro EU member states as the prevalence of euro-denominated FX loans makes the task of managing the economic convergence into the euro zone more difficult.

The problem of FX lending has become a subject of intense discussion in the European Systemic Risk Board (ESRB). Potential instability of the financial market in some of the EU member states and depreciation of their currencies can lead to a spillover effect for the European financial market

as a whole. It can potentially work through two channels: the funding interlinkages between the credit instructions in the home countries and their affiliates, and via home country credit institutions' general exposure to the effected countries. This is why KNF supports the ESRB in its work on an EU-wide recommendation in this respect. There should be at the European level a clear identification of risks as well as general guidance on how to deal with them. At the same time, the ESRB does not have any binding instruments on its disposal. Member states should, then, elaborate measures suitable for their domestic circumstances, addressing market-specific risks stemming from the FX lending. EU regulations should not limit countries' abilities to introduce measures aimed at mitigating risks identified by the ESRB.

Systemically important financial institutions

Risks posed by the "systemically important" financial institutions have not decreased since the financial crisis. The largest banks have grown even larger, with collected deposits exceeding the revenues of national budgets in some cases. At the same time, regulators have not yet agreed on a regulatory response.

The consequences of the failure of a systemically important financial institution (SIFI) are hard to estimate, but they could be devastating. Rescuing such a failing institution could force a country itself into bankruptcy. With risks so great, regulators should consider any possible initiatives to increase safety and soundness of the SIFIs. Higher capital requirements, as proposed recently by the Basel Committee, are a possible solution. Additional surcharges should be proportionate to additional risks generated by SIFIs. At the same time, reliable resolution tools should be introduced to facilitate the liquidation of even very complex institutions. It must be absolutely clear that even the largest bank can fail and will be allowed to fail. The authorities must have instruments to liquidate it in an orderly manner.

The term "SIFIs" has become synonymous with "large cross-border financial groups." Such an approach risks creating a misunderstanding about where systemic risks really originate. Within cross-border groups, some entities are sound from a prudential point of view, conservative in their strategies, and not that large compared to the market they operate in. Capital surcharges should apply principally to those entities within the groups that generate the highest risk, due to their size, interconnectedness, and sophistication. Application of the additional requirements at the consolidated level could see the parents allocating the burden within the groups most efficiently but not necessarily adequately to risk distribution.

Additional measures to address the problem of branches

The European Passport facilitated cross-border banking activities. Some large institutions have chosen to operate in another country via a branch instead of a subsidiary, even if they have a considerable business there. But branches of banks generate risks that branches of other companies will never pose. That is why the European Passport should be supplemented by measures that limit that risk. One of them could be to set a maximum level of deposits a branch of a bank can collect before it must transform into a subsidiary. An alternative solution would see (1) host supervisors having greater insight into the situation of institutions operating via branches and (2) branches participating in deposit guarantee schemes of the host countries.

Deposit guarantee schemes

One of the fundamental problems of today's financial system architecture is that costs are not expected to be borne where key decisions are made. The whole responsibility for its misguided actions lies with a given financial institution (and, ultimately, the local deposit guarantee scheme), even if those actions were forced by its parent company. In the KNF's view, if a financial institution is a dominating shareholder of another financial institution ("a qualified owner"), it should participate in costs of bankruptcy of the subsidiary. This could be achieved by having the parent company contributing to the deposit guarantee scheme responsible for the deposits collected by the subsidiary.

Deposit guarantee schemes within the EU could be strengthened further by the creation of a network of formal linkages between them, especially between home and host countries. As an alternative to burdening taxpayers with costs of bank bailouts, the guarantee funds could lend to each other in case one of them is unable to repay depositors of a large bank that failed.

2. Unregulated or lightly regulated institutions

KNF has often reiterated that any regulations imposed on the financial sector in these difficult times need to be carefully tailored and have precise objectives. The risks of overregulating the sector, disturbing financial intermediation, stifling economic growth, and incentivizing unregulated "shadow banking" activity are too great to act without a clear focus.

A moderate approach should also be assumed toward the wide sphere of the so-called shadow banking. Advocates of applying quasi-banking supervision to this diversified group of entities should take into account the following three facts. First, clients of hedge funds, money market funds, or special investment vehicles are aware of higher risk (compared to products offered by banks) and accept it in expectation of higher returns. Second, these entities generate more risks to each other than to the banking sector and financial intermediation. Third, most of them are already regulated. Having said that, KNF is not willing to enter further into discussion on this matter as the ultimate responsibility for regulation of the financial sector lies with the governments, not with supervisors.

III. CONCLUSIONS

The KNF commenced its activities on September 19, 2006. The new authority took over the powers of the Insurance and Pension Funds Supervision Commission and the Securities and Exchange Commission. As of January 1, 2008, the KNF took over the powers of the Commission for Banking Supervision. As a result, the integrated financial supervision model was introduced.

One of the challenges in the pre-crisis period in Poland was implementation of European directives pertaining to the financial market. The most important was the CRD. Poland amended the Banking Act accordingly, and the Commission for Banking Supervision issued several resolutions.

It should be noted that the performance of the Polish financial sector from 2004 to 2008 was very good. Despite this, Polish financial supervision worked to ensure a strong capital base among credit institutions and to improve the liquidity of those institutions.

The currency structure of loans extended by banks may be regarded as an important factor influencing financial system stability. Despite the fact that the share of foreign-currency-denominated loans in the loan portfolio is, in comparison with other CEE countries, relatively low, risks related to such credits may pose a threat to financial system stability and the effectiveness of monetary policy. Of course, the exchange-rate risk depends also on exchange-rate policy.

Poland adopted the Basel II recommendations and introduced detailed capital adequacy requirements in 2008. KNF resolutions stipulated precise methodology of CAR estimation. The assessment of the effectiveness of capital regulations should be connected to the evaluation of discretionary measures adopted by the KNF in 2009 and 2010. The quantitative criteria of CAR calculation and the execution of banks' dividend policy in accordance with the KNF requirements secured a strong capital base of the Polish banking sector in 2009 and 2010. This helped mitigate the impact of credit losses incurred in this period on banks' financial health.

Some of the ideas that are central to Basel III were put into effect in Poland even before they were endorsed by the Basel Committee. The liquidity rules implemented by the Commission for Banking Supervision and later confirmed by the KNF had been developed before the onset of turbulence in the global financial markets. Recommendation P (adopted in 2002), Resolution No. 9/2007 of the Commission for Banking Supervision, and Resolution No. 386/2008 of the KNF are the key elements of the Polish liquidity regime. Binding liquidity standards have proven to be very effective. As a consequence, the National Bank of Poland has not had to provide liquidity to the banking sector since the end of 2010.

The KNF has also recommended that banks hold a kind of capital conservation buffer (2 percent of risk-weighted assets). The role the Basel Committee intends to attribute to the countercyclical capital buffer has been, at least partially, fulfilled in Poland by the DTI and LTV ratios. Recommendation T and the amended version of Recommendation S provided for rules concerning risk management for credit exposures and introduced quantitative standards for creditworthiness assessments. The limits on the debt-to-income ratio and the higher requirements concerning the minimum creditworthiness of clients applying for foreign currency loans helped adjust parameters of credit growth to existing conditions in the banking sector.

During recent quarters, banks tightened their credit policy. It should also be underlined that in the past two years banks were primarily extending local-currency-denominated loans. There is no doubt that such positive actions occurred partly due to the implementation of the regulations. On the other hand, the slower increase of FX loans can be explained by the depreciation of the zloty and a rise in the awareness of exchange-rate risk.

Partly due to macro-prudential regulations and partly due to macroeconomic conditions, the credit expansion of 2004–2008 did not lead to substantial imbalances in the Polish economy and financial system. The world is changing very fast, though, and new challenges emerge. Increasing globalization of an already global economy, rising capital flows stimulated by loose fiscal and monetary policy in most of the developed countries, uncertainty related to public debt burden, and multifaceted regulations all make these times challenging for financial sector regulators and supervisors.

Still, the KNF is confident that the sound fundamentals of the Polish banking sector will enable it to navigate through these turbulent times successfully and that the credit cycle can still be managed with the use of existing tools. Initiatives proposed at the international level, including the capital buffers and closer examination of the problem of foreign currency lending, will be of additional assistance. As stressed in the previous sections, any measures introduced to protect financial stability or smooth the credit cycle should be applied at the local level, where specific risks originate.

Annex—Tables and Figures

Table 1. Assets of financial institutions in Poland (PLN billion)

Institutions	2002	2003	2004	2005	2006	2007	2008	2009	2010
Commercial and cooperative banks	466.5	489.0	538.5	586.5	681.8	792.8	1035.4	1057.4	1158.0
Credit unions	2.5	3.3	4.2	5.3	6.0	7.3	9.4	11.6	14.1
Insurance companies	57.6	65.7	77.9	89.6	108.6	126.9	137.9	139	145.1
Investment funds	23	33.8	37.6	61.6	99.2	133.8	73.9	93.4	121.8
Open pension funds	31.6	44.8	62.6	86.1	116.6	140	138.3	178.6	223.3
Brokerage entities	2.8	3.7	5.5	6.9	10.8	11.8	8.6	9.9	9.2
Total	**584.0**	**640.3**	**726.3**	**836**	**1023.0**	**1212.6**	**1403.5**	**1489.9**	**1671.5**

Source: NBP, KNF, KSKOK.

Table 2. Assets of financial institutions in Poland (% of GDP)

Institutions	2002	2003	2004	2005	2006	2007	2008	2009	2010
Commercial and cooperative banks	57.7	58.0	58.2	59.6	64.3	67.4	81.2	78.7	81.8
Credit unions	0.3	0.4	0.5	0.5	0.6	0.6	0.7	0.9	1.0
Insurance companies	7.1	7.8	8.4	9.1	10.2	10.8	10.8	10.3	10.3
Investment funds	2.8	4.0	4.1	6.3	9.4	11.4	5.8	7.0	8.6
Open pension funds	3.9	5.3	6.8	8.8	11.0	11.9	10.8	13.3	15.8
Brokerage entities	0.3	0.4	0.6	0.7	1.0	1.0	0.7	0.7	0.6
Total	**72.2**	**75.9**	**78.6**	**85.0**	**96.5**	**103.0**	**110.0**	**110.9**	**118.1**

Source: NBP, KNF, KSKOK.

Table 3. Growth rate of assets of financial institutions in Poland (%)

Institutions	2003	2004	2005	2006	2007	2008	2009	2010
Commercial and cooperative banks	4.8	10.1	8.9	16.2	16.3	30.6	2.1	9.5
Credit unions	32.0	27.3	26.2	13.2	21.7	28.8	23.4	21.8
Insurance companies	14.1	18.6	15.0	21.2	16.9	8.7	0.8	4.4
Investment funds	47.0	11.2	63.8	61.0	34.9	-44.8	26.4	30.4
Open pension funds	41.8	39.7	37.5	35.4	20.1	-1.2	29.1	25.0
Brokerage entities	32.1	48.6	25.5	56.5	9.3	-27.1	15.1	-7.1
Total	**9.6**	**13.4**	**15.1**	**22.4**	**18.5**	**15.7**	**6.2**	**12.2**

Source: NBP, KNF, KSKOK.

Table 4. Number of banks and branches of credit institutions carrying out operational activities

Institutions	2002	2003	2004	2005	2006	2007	2008	2009	2010
Commercial banks	59	58	54	54	51	50	52	49	49
Cooperative banks	605	600	596	588	584	581	579	576	576
Branches of credit institutions	x	x	3	7	12	14	18	18	21
Total	**664**	**658**	**653**	**649**	**647**	**645**	**649**	**643**	**646**

Source: NBP, KNF.

Table 5. The ownership structure of the banking sector (% of total banking sector assets)

	2002	2003	2004	2005	2006	2007	2008	2009	2010
1. Domestic investors	**32.6**	**32.2**	**32.5**	**30**	**30.3**	**29.1**	**27.7**	**31.9**	**33.8**
1.1. Banks with major state shareholding	25.1	24.4	20.6	20.3	19.8	18.3	17.3	20.8	21.5
1.2. Commercial banks with major private shareholding	2.5	2.6	6.6	3.9	4.3	4.6	5.0	5.3	6.2
1.3. Cooperative banks	5	5.2	5.3	5.8	6.2	6.2	5.4	5.8	6.1
2. Foreign investors	**67.4**	**67.8**	**67.5**	**70**	**69.7**	**70.9**	**72.3**	**68.1**	**66.2**
2.1. Commercial banks	67.4	67.8	66.9	69.1	66.6	66.6	66.9	62.8	61.5
2.2. Branches of credit institutions	0.0	0.0	0.4	0.9	3.1	4.3	5.4	5.3	4.7

Source: NBP, KNF.

Table 6. Top 5 foreign investors in banking sector

Year	Country (% of total Polish banking sector assets)				
2002	Germany (17.9)	Italy (14.1)	USA (8.6)	Netherlands (6.8)	Belgium (5.9)
2003	Germany (18.2)	Italy (13.2)	USA (9.0)	Netherlands (7.2)	Belgium (5.8)
2004	Germany (18.9)	Italy (11.2)	USA (8.7)	Netherlands (7.9)	Belgium (5.0)
2005	Italy (21.1)	Germany (8.7)	Netherlands (8.2)	USA (7.9)	Ireland (4.8)
2006	Italy (19.9)	Germany (8.4)	Netherlands (8.2)	USA (7.8)	Belgium (4.9)
2007	Italy (17.4)	Netherlands (10.9)	Germany (9.3)	USA (7.4)	Belgium (5.6)
2008	Italy (13.4)	Netherlands (10.8)	Germany (10.2)	USA (8.6)	Belgium (6.1)
2009	Italy (13.3)	Germany (9.9)	Netherlands (8.7)	USA (7.4)	Belgium (5.7)
2010	Italy (12.4)	Germany (10.4)	Netherlands (8.6)	USA (6.9)	France (5.8)

Source: NBP, KNF.

Table 7. Selected profitability and performance ratios of the banking sector (%)

Ratio	2002	2003	2004	2005	2006	2007	2008	2009	2010
ROA	0.5	0.5	1.4	1.6	1.8	1.7	1.6	0.9	1.05
ROE	5.8	5.8	17.2	20.6	22.4	22.5	21.1	11.3	12.7
CAR	13.8	13.7	15.5	14.5	13.2	12.1	11.2	13.3	13.8
NIM	3.4	3.2	3.3	3.3	3.3	3.1	3.2	2.6	2.8
NPL	21.1	21.2	14.9	11.0	7.4	4.1	3.5	7.5	8.5

ROA – Return of Assets; ROE – Return of Equity; CAR – Capital Adequacy Ratio (minimum requirement is 8 percent and this level is binding); NIM – Net Interest Margin, NPL – Nonperforming Loans ratio. Source: NBP, KNF.

Table 8. Structure of large credit exposures by section of economic activity classification

Section	2004	2005	2006	2007	2008	2009	2010
A	2.0	1.7	1.6	1.7	1.5	1.5	2.7
B	0.8	0.5	0.6	0.7	0.8	0.9	1.0
C	36.2	36.5	38.4	34.7	31.8	31.2	31.1
F	7.0	7.5	8.1	9.7	10.8	10.9	16.9
Market services	54.1	53.8	51.3	53.2	55.1	55.4	49.1
Total	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**

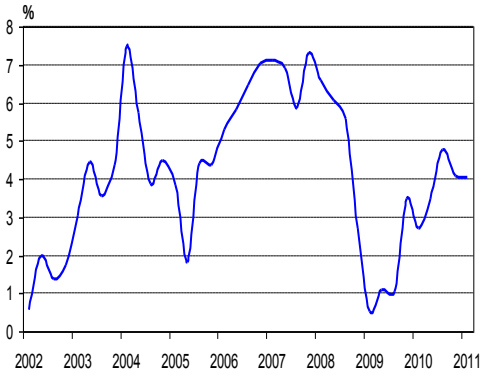
Notes: A – Agriculture, B – Mining, C – Manufacturing, F – Construction; Market services – Retail trade and repairs; transportation and storage; hotels and restaurants; information and communication; real estate activities; professional activities. Data for 2008–2010 are presented at the end of September, other years—at the end of December. Large exposures: for a bank in the form of a joint stock company, state-run bank, and a nonassociated cooperative bank, an exposure toward one enterprise in excess of PLN 500,000; for an associated cooperative bank an exposure toward one client in excess of PLN 50,000. Source: NBP.

Table 9. Number of banks failing to meet supervisory liquidity standards

	03.2009	06.2009	09.2009	12.2009	03.2010	06.2010	09.2010	12.2010
Commercial banks	4	1	3	1	0	0	0	0
Cooperative banks	5	11	10	10	7	10	6	4
Branches of credit institution	1	1	1	0	0	0	0	1
Share in banking sector's asset (%)	4.7	0.3	0.4	0.3	0.2	0.2	0.2	0.1

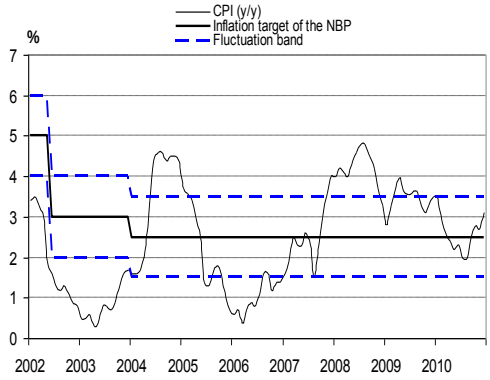
Source: KNF.

Figure 1. GDP growth rate (y/y, quarterly data)



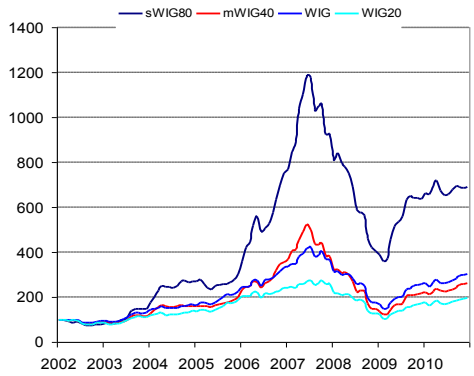
Source: CSO.

Figure 2. Consumer Price Index (CPI; y/y, monthly data) and inflation target



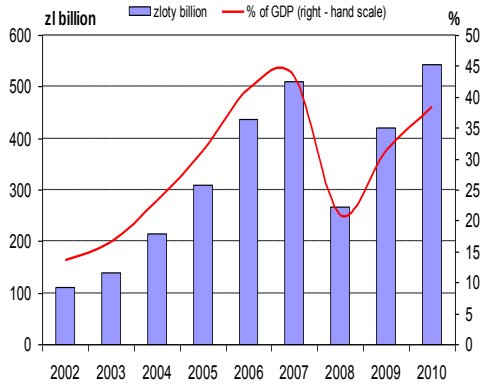
Source: CSO, NBP.

Figure 3. Warsaw Stock Exchange indices (monthly data)



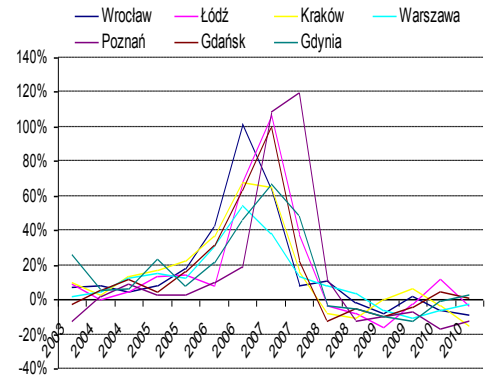
Notes: January 2002 = 100.
Source: Bloomberg.

Figure 4. Capitalization of stock market



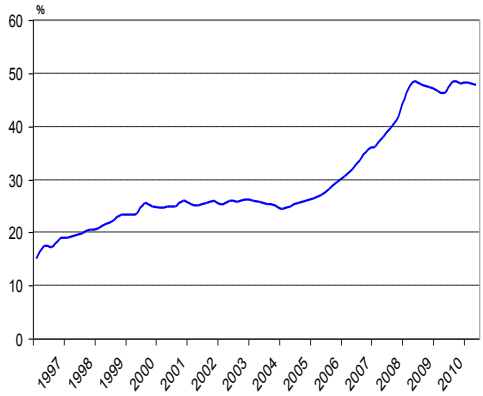
Notes: capitalization concerns only domestic companies.
Source: authors' calculations.

Figure 5. Annual growth in residential property ask prices in the biggest cities



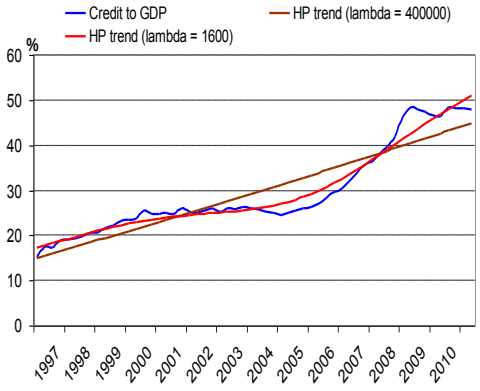
Source: NBP.

Figure 6. Credit-to-GDP ratio (quarterly data)



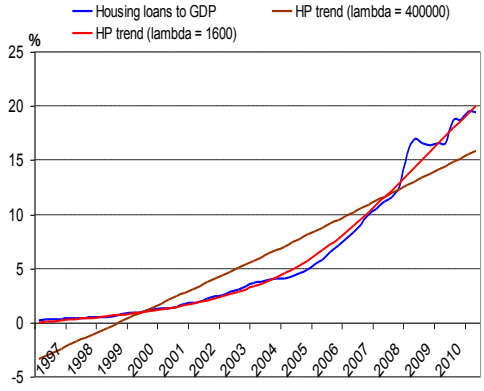
Source: CSO.

Figure 7. Credit-to-GDP ratio and HP trend (quarterly data)



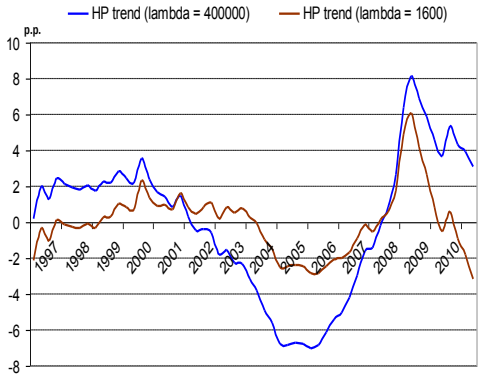
Notes: lambda = 400000: BCBS proposal; lambda = 1600: typical value of smoothing parameter in business cycle analysis.
Source: authors' calculation.

Figure 8. Housing loans-to-GDP ratio (quarterly data)



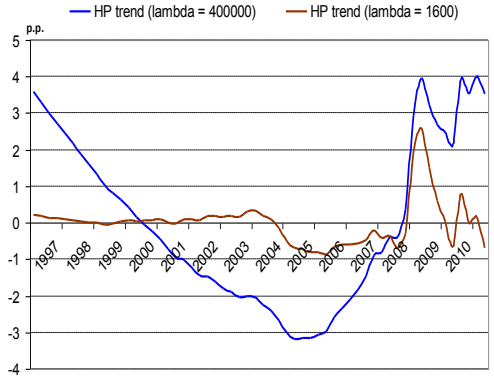
Source: authors' calculation.

Figure 9. Credit-to-GDP ratio gap (quarterly data)



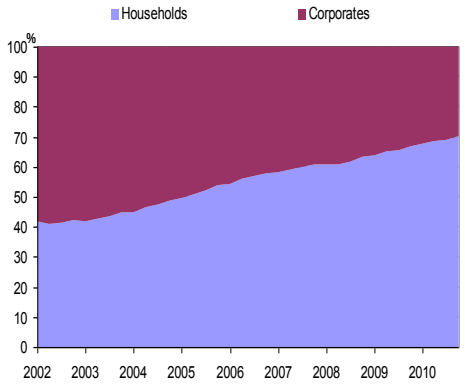
Source: authors' calculation.

Figure 10. Housing loans-to-GDP ratio gap (quarterly data)



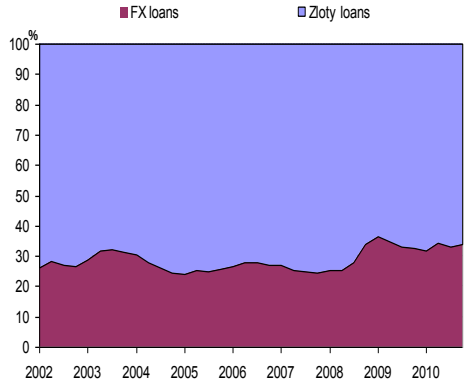
Source: authors' calculation.

Figure 11. Structure of loans for nonfinancial sector



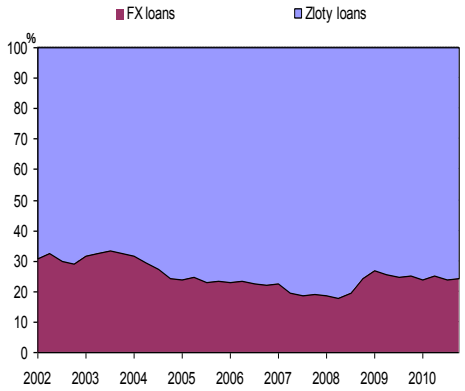
Source: NBP.

Figure 12. Currency structure of loans for nonfinancial sector



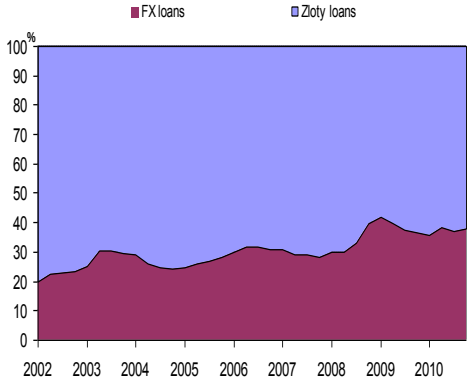
Source: NBP.

Figure 13. Currency structure of corporate loans



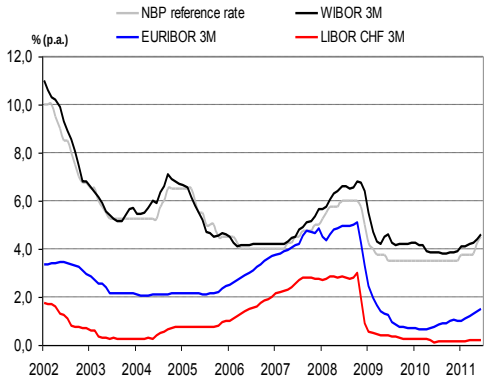
Source: NBP.

Figure 14. Currency structure of household loans



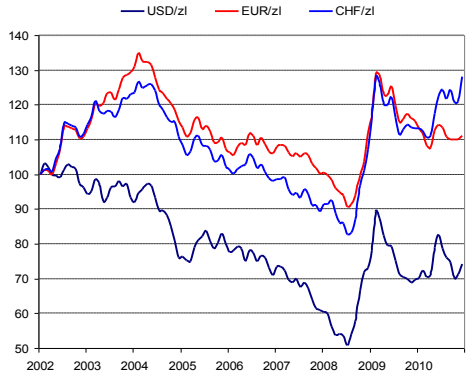
Source: NBP.

Figure 15. NBP reference rate and interbank interest rates



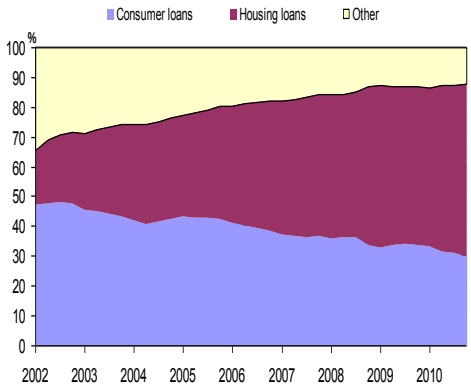
Source: NBP, Bloomberg.

Figure 16. Nominal exchange rate of zloty (monthly data)



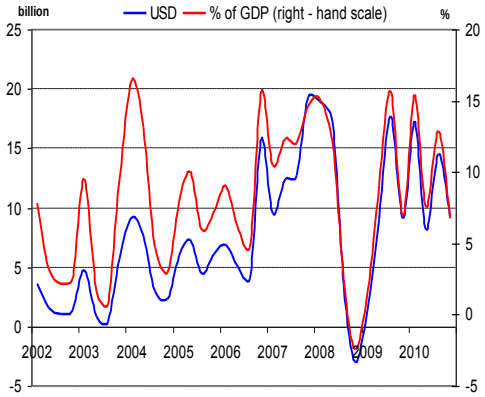
Notes: monthly average exchange rate; January 2002 = 100; the growth means depreciation of the zloty.
Source: NBP.

Figure 17. Structure of loans to households



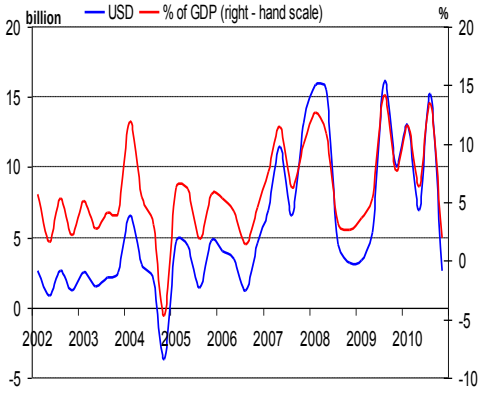
Source: NBP.

Figure 18. Gross capital inflows (quarterly data)



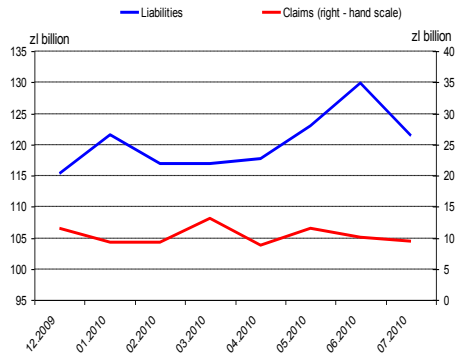
Notes: gross capital inflows are: total FDI in Poland, portfolio investments liabilities and other investment liabilities. Source: authors' calculation.

Figure 19. Net capital flows (quarterly data)



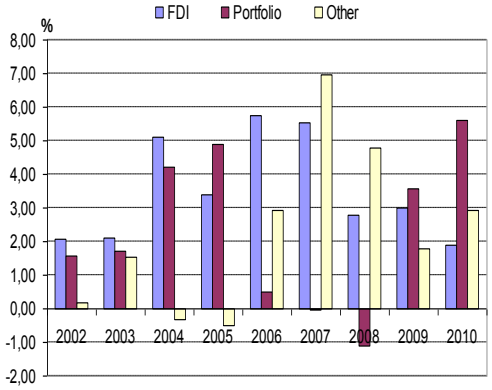
Note: net capital flows = net financial account.
Source: authors' calculation.

Figure 20. Liabilities and claims to parent banks



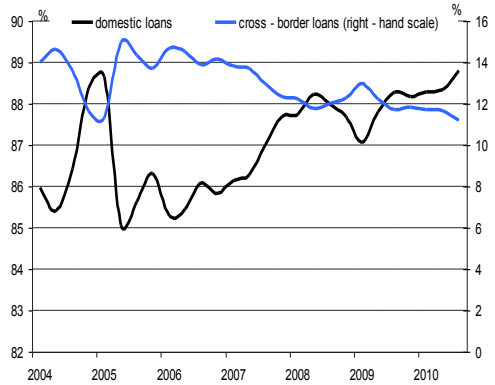
Source: KNF.

Figure 21. Structure of gross capital inflows (% of GDP)



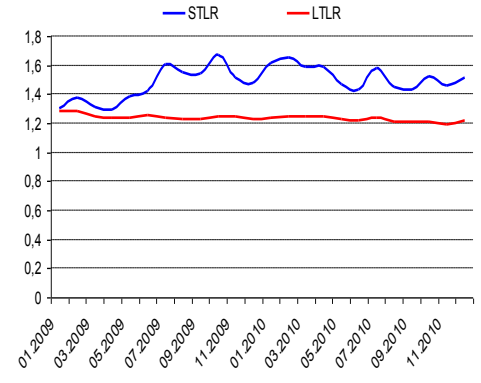
Source: own calculation.

Figure 22. Domestic and cross-border loans for nonfinancial sector (quarterly data)



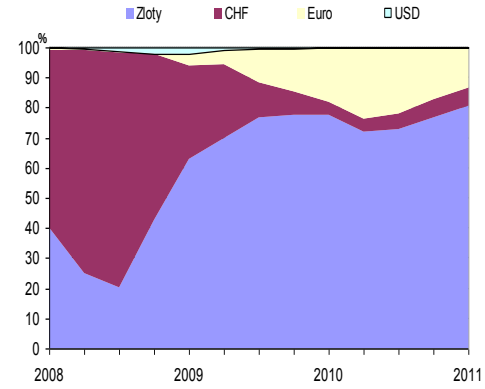
Source: JEDH and NBP.

Figure 23. Liquidity ratios in banks with assets above 200 million PLN



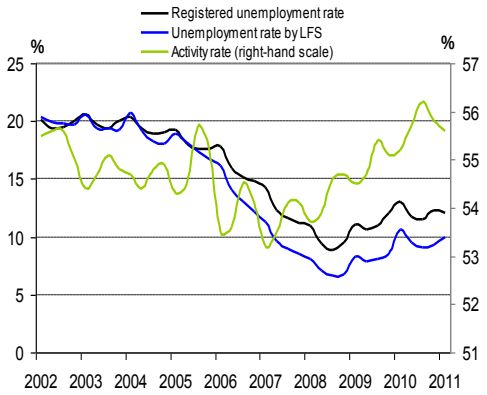
Notes: STLR: short-term liquidity ratio; LTLR; long-term liquidity ratio, i.e. ratio of coverage of illiquid and limited liquidity assets with regulatory capital and external funds.
Source: KNF.

Figure 24. Currency structure of new housing loans to households



Source: KNF.

Fig. 25. Unemployment and activity rates



Source: CSO.

REFERENCES

BCBS. 2010**.** *Guidance for National Authorities Operating the Countercyclical Capital Buffer*. Basel.

IMF. 2010. *Coping with Capital Flows Under an Inflation Targeting Regime: Lessons for Poland*, IMF Country Report No. 10/119. Washington DC.

NBP. 2011. *Financial Stability Report*. Warsaw.

CNB. 2011. *Financial Stability Report*. Prague.

ACRONYMS

BCBS – Basel Committee on Banking Supervision

CNB – Czech National Bank

CSO – Central Statistical Office

KNB – Commission on Banking Supervision

KNF – Polish Financial Supervision Authority

KSKOK – National Association of Credit Unions

MPC – Monetary Policy Council

NBP – National Bank of Poland